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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,104	12/16/2003	Yi Luo	74435	5488

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MACMILLAN, SOBANSKI & TODD, LLC
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 TOLEDO, OH 43604

EXAMINER

ISSING, GREGORY C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/737,104

Applicant(s)

LUO ET AL.

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/16/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sari et al in view of Lau and Sheynblat.
3. Sari et al (6,791,477) teach a method and apparatus for a vehicle locating system including a vehicle mounted GPS receiver 16 with a transceiver for communicating via a wired or wireless signal, a portable key fob device 10 including a GPS receiver 94 for receiving GPS signals, a transceiver 118, 120 for communicating, a CPU 116 for processing data, and an electronically controlled display 50 such that the CPU and GPS receiver are normally in a standby mode, i.e. reduced power usage, and activated upon pressing of buttons 22, 23 and 80 and wherein the display is capable of displaying navigation information to locate a parked vehicle.
4. Sari et al differ from the claimed subject matter since the provision of assistance data from the vehicle to the portable device is not taught.
5. Lau (5,883,594) teach the provision of transmitting assistance data to a portable GPS receiver to achieve low power consumption and a fast time to first fix. Lau shows GPS base station 12 which tracks the GPS signals from preferably all visible GPS satellites and decodes the information that may be used for acquisition and location and subsequently passes the information to a communication means which transmits the assistance information to the low-power, portable device. Upon reception of the assistance data, the GPS receiver of the portable device is activated and the information is used to acquire the satellite signals for use in determination of pseudoranges and subsequently position. Thus, Lau suggests the derivation of assistance data at a first receiver and the subsequent transmission of the assistance data to a low-power portable GPS receiver so as to achieve a low power consumption and a fast time to first fix in the portable device. The assistance data suggested by Lau includes satellite visibility, health and ephemeris.

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6. Sheynblat (6,720,915) teaches the transmission of assistance from a server location wherein the assistance "information may specify the satellites to be searched for, the estimated time of arrival of these signals and the expected frequency (Doppler) of the signals." The server is described as being "a GPS reference server, a cellular switching center, a location server, a cellular transmission site, a base station controller or a mobile SPS receiver."

7. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sari et al by providing assistance data to the portable key fob device 10 to aid in the acquisition of GPS signals in view of the teachings of Lau so as to achieve low power consumption of the battery power supply since the portable device is not required to be on except when activated and a fast time to first fix decreases the amount of time required for powered operation. To utilize the vehicle GPS receiver as the source of the assistance data would have been obvious in light of the teachings of Sheynblat who suggests that a mobile GPS receiver is capable of providing assistance data. The teachings of Lau and Sheynblat show the conventional assistance data, including ephemeris, clock data, and Doppler data. (Art cited by the applicant in the IDS also show the various forms of assistance data, e.g. Taylor)

8. Claims 2, 3, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sari et al in view of Lau and Sheynblat and further in view of Ayed or Brust.

9. The combination set forth above fails to show the alternative processing of the navigation information in the vehicle-mounted device as opposed to the portable device.

10. Ayed (6,407,698) teach a vehicle locating system for directing a user to a remotely-located vehicle including portable locator device 12 (Figs. 2, 7 and 8) which uses GPS information to determine a position of the vehicle at the time of parking as well as a current position of the portable device, and responsive to the positions determine navigation information, including direction, for directing the portable device to the vehicle. The determination of the relative bearing and distance, as well as the refining of the portable device position may be performed remotely in an alternative embodiment (5:15-23).

11. Brust et al (6,650,999) teach a vehicle locating system for directing a user MT to a remotely-located vehicle KFZ, each of which may include a GPS navigation device. According to a favorable

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embodiment, during the request for the information about the position of the vehicle, the mobile device also transmits its own current position information such that the navigation route is determined remotely from the user MT and transmitted to the mobile user for display thereat.

12. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Sari et al in view of Lau and Sheynblat by further reducing power consumption in the portable device of Sari et al by shifting the navigation processing to a remote site such as the vehicle device in view of the teachings of either Ayed or Brust et al since the portable device would not require any increased memory for map databases nor additional processing means for processing the location information used in the determination of directional and distance information.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

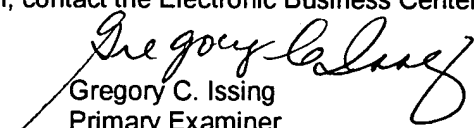
14. Bloebaum et al (6,204,808) teach the transmission of assistance from a base station to a mobile user to aid the mobile user in the acquisition of GPS signals as well as the subsequent transmission of the mobile-acquired GPS data to the base station for network-based determination of position.

15. DeLuca et al (6,725,138) and Wilkinson (6,489,921) teach known vehicle location systems incorporating GPS receivers in key fobs for navigating a user back to a parked vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gregory C. Issing
Primary Examiner
Art Unit 3662

gci